



**NAVAL  
POSTGRADUATE  
SCHOOL**

**MONTEREY, CALIFORNIA**

**THESIS**

**CUTTING THE LINK BETWEEN DRUGS AND  
TERRORISTS: COUNTERING MAJOR TERRORIST-  
FINANCING MEANS**

by

Kashif Jamal Khan  
Olcay Er

June 2013

Thesis Advisor:  
Second Reader:

Michael Freeman  
George Lober

**Approved for public release; distribution is unlimited**

**THIS PAGE INTENTIONALLY LEFT BLANK**

**REPORT DOCUMENTATION PAGE**
*Form Approved OMB No. 0704-0188*

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.

<b>1. AGENCY USE ONLY (Leave blank)</b>	<b>2. REPORT DATE</b> June 2013	<b>3. REPORT TYPE AND DATES COVERED</b> Master's Thesis	
<b>4. TITLE AND SUBTITLE</b> CUTTING THE LINK BETWEEN DRUGS AND TERRORISTS: COUNTERING MAJOR TERRORIST-FINANCING MEANS		<b>5. FUNDING NUMBERS</b>	
<b>6. AUTHOR(S)</b> Kashif J. Khan, Olcay Er			
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> Naval Postgraduate School Monterey, CA 93943-5000		<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>	
<b>9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> N/A		<b>10. SPONSORING/MONITORING AGENCY REPORT NUMBER</b>	
<b>11. SUPPLEMENTARY NOTES</b> The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB Protocol number NPS 2012 0026-IR-EP7-A			
<b>12a. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for public release; distribution is unlimited		<b>12b. DISTRIBUTION CODE</b>	
<b>13. ABSTRACT (maximum 200 words)</b>  This thesis focuses on the Taliban and the PKK's involvement in the opium trade. This thesis fills a gap by illustrating the extent to which terrorist organizations use drugs to raise funds in five stages of the heroin trade, including cultivation, manufacturing, shipment, sale, and consumption. These two terrorist organizations have particular strengths and weaknesses that are identified in this thesis. This thesis proposes the counter narcoterrorism solution model, which displays both the convergent and divergent stages of the opium trade. The manufacturing stage is the only stage where the products converge into countable and targetable laboratories. This model suggests that targeting the opium manufacturing process is not only cost effective, but can also reduce the Taliban's as well as the PKK's illegal funds.			
<b>14. SUBJECT TERMS</b> Drug Trafficking, Terrorist Financing, Narcoterrorism, The Taliban, The PKK, Opium, Heroin, Cultivation, Manufacturing, Shipment, Sale, Consumption, Drug Legalization		<b>15. NUMBER OF PAGES</b> 65	
			<b>16. PRICE CODE</b>
<b>17. SECURITY CLASSIFICATION OF REPORT</b> Unclassified	<b>18. SECURITY CLASSIFICATION OF THIS PAGE</b> Unclassified	<b>19. SECURITY CLASSIFICATION OF ABSTRACT</b> Unclassified	<b>20. LIMITATION OF ABSTRACT</b> UU

NSN 7540-01-280-5500

 Standard Form 298 (Rev. 2-89)  
 Prescribed by ANSI Std. Z39-18

**THIS PAGE INTENTIONALLY LEFT BLANK**

**Approved for public release; distribution is unlimited**

**CUTTING THE LINK BETWEEN DRUGS AND TERRORISTS: COUNTERING  
MAJOR TERRORIST-FINANCING MEANS**

Kashif J. Khan  
Lieutenant Colonel, Pakistan Air Force  
B.S., Air Force Academy, Risalpur, 1993

Olcay Er  
Police Chief Inspector, Turkish National Police  
B.S., Police Academy, Ankara, 2002

Submitted in partial fulfillment of the  
requirements for the degree of

**MASTER OF SCIENCE IN DEFENSE ANALYSIS**

from the

**NAVAL POSTGRADUATE SCHOOL**  
**June 2013**

Authors: Kashif J. Khan

Olcay Er

Approved by: Michael Freeman  
Thesis Advisor

George Lober  
Second Reader

John Arquilla  
Chair, Department of Defense Analysis

**THIS PAGE INTENTIONALLY LEFT BLANK**

## **ABSTRACT**

This thesis focuses on the Taliban and the PKK's involvement in the opium trade. This thesis fills a gap by illustrating the extent to which terrorist organizations use drugs to raise funds in five stages of the heroin trade, including cultivation, manufacturing, shipment, sale, and consumption. These two terrorist organizations have particular strengths and weaknesses that are identified in this thesis. This thesis proposes the counter narcoterrorism solution model, which displays both the convergent and divergent stages of the opium trade. The manufacturing stage is the only stage where the products converge into countable and targetable laboratories. This model suggests that targeting the opium manufacturing process is not only cost effective, but can also reduce the Taliban's as well as the PKK's illegal funds.

**THIS PAGE INTENTIONALLY LEFT BLANK**

## TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	BACKGROUND .....	1
B.	RESEARCH QUESTIONS AND METHODOLOGY .....	2
C.	LITERATURE REVIEW .....	2
II.	DRUG TRAFFICKING, TERRORIST FINANCING, AND THEIR NEXUS ....	7
A.	DRUG TRAFFICKING PROCESS.....	7
1.	<i>Cultivation</i> .....	8
2.	<i>Manufacturing</i> .....	9
3.	<i>Shipment</i> .....	10
4.	<i>Sale</i> .....	11
5.	<i>Consumption</i> .....	12
B.	THE NEXUS BETWEEN OPIUM AND TALIBAN/PKK FINANCING .....	13
1.	The Nexus between Opium and Taliban Financing .....	13
a.	<i>Cultivation</i> .....	15
b.	<i>Manufacturing</i> .....	16
c.	<i>Shipment</i> .....	17
d.	<i>Sale</i> .....	18
e.	<i>Consumption</i> .....	18
2.	The Nexus between Opium and PKK Financing .....	18
a.	<i>Cultivation</i> .....	20
b.	<i>Manufacturing</i> .....	20
c.	<i>Shipment</i> .....	22
d.	<i>Sale</i> .....	23
e.	<i>Consumption</i> .....	24
III.	NARCOTERRORISM ANALYSIS.....	27
A.	THE TALIBAN ANALYSIS.....	28
B.	THE PKK ANALYSIS .....	33
C.	COUNTER NARCO-TERRORISM SOLUTION MODEL.....	36
D.	RECOMMENDATIONS.....	38
1.	Targeting the Manufacturing Stage .....	38
2.	Strong Information Campaign .....	39
3.	Policy Measures.....	39
4.	Increasing National and International Efforts.....	40
E.	CONCLUSION .....	41
LIST OF REFERENCES .....		43
INITIAL DISTRIBUTION LIST .....		47

**THIS PAGE INTENTIONALLY LEFT BLANK**

## LIST OF FIGURES

Figure 1.	Global Illicit Cultivation of Opium Poppy (From UNODC 2012).....	9
Figure 2.	Global Potential Opium Production (From UNODC 2012) .....	9
Figure 3.	Potential Illicit Production of Opium and Manufacture of Heroin of Unknown Purity in Tons (From UNODC 2012) .....	10
Figure 4.	Afghan Heroin Trafficking Routes and Volumes in 2009 (From UNODC 2011) .....	11
Figure 5.	Opium Prices and Production in Afghanistan Compared with Retail Prices of Heroin in Western and Central Europe, 1998–2011 (From UNODC 2012) .....	12
Figure 6.	The Taliban’s Annual Opium Revenue Breakdown.....	15
Figure 7.	The PKK’s Annual Opium Revenue Breakdown .....	20
Figure 8.	The Heroin Balkan Route and Price from Farm Gate to the Street Level .....	27
Figure 9.	Heroin Supply and Demand Chain. ....	30
Figure 10.	Counter Narcoterrorism Solution Model .....	36

**THIS PAGE INTENTIONALLY LEFT BLANK**

## **LIST OF TABLES**

Table 1.	Summary Analysis of the Taliban.....	32
Table 2.	Summary Analysis of the PKK.....	35

**THIS PAGE INTENTIONALLY LEFT BLANK**

## **LIST OF ACRONYMS AND ABBREVIATIONS**

CRS	Congressional Research Service
DEA	Drug Enforcement Agency
FARC	Revolutionary Armed Forces of Colombia
HIV	Human Immunodeficiency Virus
NATO	North Atlantic Treaty Organization
OGD	Observatoire Geopolitique Des Drugs
PKK	Kurdistan Workers' Party
SECI	Southeast European Cooperative Initiative
UNODC	United Nations Office on Drugs and Crime
WDR	World Drug Report

**THIS PAGE INTENTIONALLY LEFT BLANK**

## **ACKNOWLEDGMENTS**

The professional guidance, support, and patience provided by our advisor, Professor Michael Freeman, was an invaluable and essential part of this thesis, without which this could not have been accomplished. We would like to express our deepest appreciation to Professor George Lober, the man who helped us refine and produce this project. We would also like to thank each and every professor of the Defense Analysis Department for their humility, kindness and patience that they displayed throughout our stay at NPS. We are also thankful to Professor John Arquilla for his guidance and support. His highly practical and analytical approach to contemporary issues gave us solid footing for performing with dignity throughout our eighteen months stay at the institution.

Finally, the time required to complete this thesis was fully supported by our families. Indeed, their endless help and support deeply motivated us to complete it on time.

**THIS PAGE INTENTIONALLY LEFT BLANK**

## I. INTRODUCTION

### A. BACKGROUND

After the Cold War, states generally stopped financing terrorist organizations. That led these organizations to develop sources of financing on their own. Terrorist organizations now acquire the majority of their income from criminal activities, and one of the most lucrative terrorist criminal activities is drug trafficking.<sup>1</sup> The nexus between terrorist organizations and the illegal drug trade has increased since the end of Cold War.<sup>2</sup> According to a recent study, “The illegal drug trade is estimated to turn over more than \$330 billion annually,”<sup>3</sup> and terrorist organizations have participated in this trade.<sup>4</sup> In order to combat terrorist activities effectively, counter-terrorism forces and agencies should address the process of fundraising, of which drug trafficking is a main source.

Within the scholarly research on terrorism and drug trafficking, the extent of cooperation between terrorist organizations and drug dealers, and the amount of money generated by terrorist organizations through the drug trafficking process is largely unknown. The Congressional Research Service Report on International Terrorism and Transnational Crime, dated March 18, 2010 argues that “analysts observe that there remains an intelligence and research gap in the prevalence, threat, and future trends associated with criminal-terrorist links.”<sup>5</sup> Therefore, it is difficult to determine whether the risk of narcoterrorism is decreasing, increasing or remaining at the same level. The same report suggests that credible intelligence sources are needed to counter the narcoterrorism threat. Knowledge of the subject provided by academic research is required by both the intelligence community and policymakers who then can formulate

---

<sup>1</sup> Phil Williams, "Transnational Criminal Organisations and International Security," *Survival* 36, no. 1 (Spring 1994), 321.

<sup>2</sup> James Piazza, "The Illicit Drug Trade, Counternarcotics Strategies and Terrorism," *Public Choice* 149, no. 3 12, 2011, 298.

<sup>3</sup> Steve Rolles et al., *The Alternative World Drug Report Counting the Costs of the War on Drugs* Count the Costs, 2012.

<sup>4</sup> *Narco-Terrorism: International Drug Trafficking and Terrorism—A Dangerous Mix* (Washington: US Government Printing Office, 2003, 1).

<sup>5</sup> John Rollins and Liana Sun Wyler, *International Terrorism and Transnational Crime: Security Threats, U.S. Policy, and Considerations for Congress* Congressional Research Service, March 18, 2010, 4.

appropriate strategies to combat narcoterrorism once the questions of how, why, and under what circumstances the terrorists and drug dealers coordinate with each other are answered.<sup>6</sup>

There also exist many difficulties in defining a clear strategy to reduce the funding generated by terrorist organizations through drug trafficking, without understanding more precisely the amount generated through the drug trafficking process than it is generated.<sup>7</sup> This thesis will try to fill these gaps of the terrorist narcotic interactions by providing a model which could offer a reasonable solution for cutting the links between drugs and terrorists.

## **B. RESEARCH QUESTIONS AND METHODOLOGY**

The main research question of this thesis is, “How can states reduce a terrorist organization’s funds raised through drug trafficking?” To answer this question, we will first analyze the extent to which terrorist organizations use drug trafficking to raise funds and then identify the weak and vulnerable links in terrorist drug trafficking systems.

This thesis first divides the illicit drug trafficking process into five stages: cultivation, manufacturing, shipment, sale, consumption. Second, the study calculates the extent of two terrorist organizations’ (the Taliban and the PKK) involvement in these five stages. This research also intends to create a counter narcoterrorist model displaying weak and vulnerable links which will propose counter measures against each step of the process and present measures to reduce the terrorist funding gained through illicit means.

## **C. LITERATURE REVIEW**

There is a debate whether states should target the supply or demand side of the drug trade. Similarly, the 2006 CRS Report for Congress claims that “proponents of vastly expanded supply reduction options, and specifically of herbicidal crop eradication, argue that this method is the most cost-effective and efficient means of eliminating illicit

---

<sup>6</sup> Ibid.

<sup>7</sup> “The illegal drug trade is estimated to turn over more than \$330 billion annually” (Steve Rolles et al., The Alternative World Drug Report Counting the Costs of the War on Drugs Count the Costs, 2012).

drug producing crops.”<sup>8</sup> On the supply side, “A reduction in the supply of illicit drugs can be made in several ways: by restricting the importation, manufacture and production of illicit drugs; by limiting the availability of the source material or the precursors, the substances used to manufacture them; [and] by reducing the availability of drugs at the street level.”<sup>9</sup> To the contrary, though, Wyler argues that counternarcotics campaigns designed for crop eradication can cause the unintentional result of adding to and further accelerating the state’s ongoing civil turmoil.<sup>10</sup> Felbab-Brown suggests that the most efficient way to fight narcoterrorism is through a reduction in drug demand, which requires an aggressive global anti-drug campaign.<sup>11</sup> However, the International Narcotics Control Board suggests:

Demand reduction efforts cannot lead to success without substantially reducing the illicit drug supply: if drugs are readily available and easily accessible, new drug abusers will soon replace former ones. At the same time, there is evidence that elimination of a given drug from the market does not mean the elimination of the drug problem but only a shift towards other drugs or substances of abuse. Consequently, without efforts to reduce illicit drug demand, actions aimed at reducing illicit drug supply will lead to only temporary successes.<sup>12</sup>

---

<sup>8</sup> Raphael F. Perl, *International Drug Trade and U.S. Foreign Policy* CRS Report for Congress, November 6, 2006.

<sup>9</sup> *Special Session of the General Assembly Devoted to the Fight Against the Illicit Production, Sale, Demand, Traffic and Distribution of Narcotic Drugs and Psychotropic Substances and Related Activities, 1998* International Narcotics Control Board,[1998]). 6.

<sup>10</sup> Liana Sun Wyler, *International Drug Control Policy* Congressional Research Service, August 24, 2009.

<sup>11</sup> Vanda Felbab-Brown, "Globalization and Narcoterrorism," in *State of Corruption, State of Chaos: The Terror of Political Malfeasance* , ed. Michaelene Cox (USA: Lexington Books, 2008), 28.

<sup>12</sup> *Special Session of the General Assembly Devoted to the Fight Against the Illicit Production, Sale, Demand, Traffic and Distribution of Narcotic Drugs and Psychotropic Substances and Related Activities, 1998* International Narcotics Control Board, 1998.

There is more scholarly consensus on the increased cooperation between terrorist organizations and drug dealers, especially the active role played by the Taliban and the PKK in the opium trade. The UNODC World Drug Report of 2012 explains that there exists no doubt in the links between drug trafficking and terrorist organizations worldwide.<sup>13</sup> The CRS report summary on International Terrorism and Transnational Crime, dated March 18, 2010, also claims that the cooperation between criminals and terrorist organizations is growing.<sup>14</sup> Gretchen Peters points out that out of the State Department's forty-two designated terrorist groups, eighteen have connections with drug trafficking and thirteen of the smuggling organizations for the U.S. illicit drug supply have connections with terrorist organizations.<sup>15</sup>

According to the statement given by Placido before the subcommittee on National Security and Foreign Affairs entitled “Transnational Drug Enterprises (part ii): Threats to Global Stability and U.S. Policy Responses,” “There is a clear and direct link between the illicit drug trade and insurgent groups in Afghanistan. The Taliban and other anti-government elements exploit the illicit drug trade to facilitate their financial, logistical, and political objectives and thereby jeopardize the prospect of long-term security and stability, reconstruction, and effective governance.”<sup>16</sup> Peters in an interview with Ahmadullah Alizai in Kandahar finds that “the smugglers forged a direct link to the Taliban and al Qaeda. They get the terrorists to move their drugs.”<sup>17</sup>

---

<sup>13</sup> UNODC *World Drug Report 2012* United Nations, June 2012, 85.

<sup>14</sup> Rollins and Wyler, *International Terrorism and Transnational Crime: Security Threats, U.S. Policy, and Considerations for Congress*

<sup>15</sup> Gretchen Peters, *Seeds of Terror : How Heroin is Bankrolling the Taliban and Al Qaeda*, 1st ed. (New York: Thomas Dunne Books, 2009), 10.

<sup>16</sup> P. Anthony Placido, *Transnational Drug Enterprises (Part II): Threats to Global Stability and U.S. Policy Responses* DEA Public Affairs, March 3, 2010.

<sup>17</sup> Peters, *Seeds of Terror : How Heroin is Bankrolling the Taliban and Al Qaeda*, 3.

Likewise, the PKK has been actively involved in trafficking drugs to Europe, and it has been estimated that they control 70–80 percent of European heroin trade.<sup>18</sup>

According to the 1999 annual report of The International Narcotics Control Strategy, prepared by the U.S. State Department, “the PKK not only is directly involved in transporting and marketing narcotics in Europe but also extracts so-called revolutionary taxes from narcotics traffickers and refiners in order to finance terrorist actions.”<sup>19</sup>

---

<sup>18</sup> Michael Freeman, *Financing Terrorism : Case Studies* (Farnham; Burlington, VT: Ashgate, 2012), 70.

<sup>19</sup> Mitchel P. Roth and Murat Sever, "The Kurdish Workers Party (PKK) as Criminal Syndicate: Funding Terrorism through Organized Crime, A Case Study," *Studies in Conflict & Terrorism* 30, no. 10 (10, 2007), 907, 908.

THIS PAGE INTENTIONALLY LEFT BLANK

## **II. DRUG TRAFFICKING, TERRORIST FINANCING, AND THEIR NEXUS**

The *Alternative World Drug* report suggests that the illegal drug trade revenue is approximately 330 billion dollars annually.<sup>20</sup> Drug traders around the world require assistance from groups having military skills, weapons, access to clandestine organizations, and safe havens. While “opiates and cocaine remain the most problematic drugs across the globe,”<sup>21</sup> this thesis looks at only opiates, as it is the most cost effective and lethal illicit drug.

The UNODC 2012 report states that Afghanistan generates 63 percent of the world’s poppy crop,<sup>22</sup> and out of the 75–80 metric tons of heroin being trafficked to Europe in 2009, 60 metric tons of heroin were transferred through the Balkan route<sup>23</sup> involving the PKK as a major source of drug trafficking. Therefore, this thesis targets the terrorist organization operating in Afghanistan, the Taliban, and the group getting the highest benefit from the heroin trade in Europe, the PKK.

This chapter is framed under two thematic sections. The first section provides an overview of the drug process and divides it into five stages: cultivation, manufacturing, shipment, sales, and consumption. The second section covers the nexus between the drug trafficking process and the financing of the Taliban and PKK.

### **A. DRUG TRAFFICKING PROCESS**

According to the UNODC 2012 report, there are 230 million consumers who have at least used illegal drugs once in their life, and of those 27 million are drug addicts. This report claims that 200,000 people are killed each year due to heroin and other drug

---

<sup>20</sup> Rolles et al., *The Alternative World Drug Report Counting the Costs of the War on Drugs*, 8.

<sup>21</sup> Caterina Gouvis Roman, Heather Ahn-Redding and Rita James Simon, *Illicit Drug Policies, Trafficking, and use the World Over*, 1st pbk ed. (Lanham, Md: Lexington Books, a division of Rowman & Littlefield Publishers, Inc., 2007), 15.

<sup>22</sup> UNODC *World Drug Report 2012*, 27.

<sup>23</sup> *World Drug Report 2011* UNODC (United Nations Office on Drugs and Crime), 2011.

consumption. In addition to undermining economic and social development, the use of these drugs has brought misery to thousands of people and contributed to a rise of crime, instability, insecurity and the spread of HIV around the world.<sup>24</sup>

Illegal drug trafficking is an enormous global market, which includes the cultivation, manufacturing, shipment, distribution, and selling of prohibited drugs. This section deals with each node of the illegal drug trafficking process with an aim of identifying the vulnerable links in this process.

## 1. Cultivation

Heroin is produced from an opium poppy flowering plant that blossoms in warm dry weather. The plant requires a growing period of approximately six to seven months and is generally cultivated in ungoverned zones. The main explanation for opium crop cultivation is the incomparable profits involved in this business.<sup>25</sup> The most suitable places for its cultivation are Afghanistan, Myanmar, and the Golden Triangle.<sup>26</sup> According to the UNODC 2012 report, Afghanistan remains the main country for opium poppy cultivating, and accounts for two thirds of the global opium poppy cultivation. The graph (Figure 1) from the UNODC 2012 report displays that the opium poppy cultivation area has increased from 191,000 hectares (ha) in 2010 to 207,000 ha in 2011 and the total production observed in 2011 was 7,000 tons (Figure 2). The amount of production was 20 % less than 2007, but displayed an increase from 2010, the year in which the opium harvest was reduced by half due to disease.<sup>27</sup> The opium cultivation regions of Afghanistan are mainly Badakhshan, Nangarhar and Helmand provinces.<sup>28</sup>

---

<sup>24</sup> *UNODC World Drug Report 2012*.

<sup>25</sup> David Mansfield, *The Economic Superiority of Illicit Drug Production: Myth and Reality*, August 2001.

<sup>26</sup> U. Zerell, B. Ahrens and P. Gerz, "Documentation of a Heroin Manufacturing Process in Afghanistan," *Bulletin on Narcotics* 47, no. 1&2 (2005), 12.

<sup>27</sup> *UNODC World Drug Report 2012*, 26.

<sup>28</sup> Zerell, Ahrens and Gerz, *Documentation of a Heroin Manufacturing Process in Afghanistan*, 12.

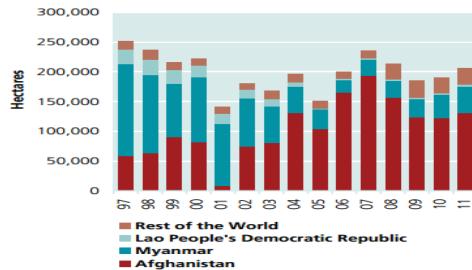


Figure 1. Global Illicit Cultivation of Opium Poppy (From UNODC 2012)

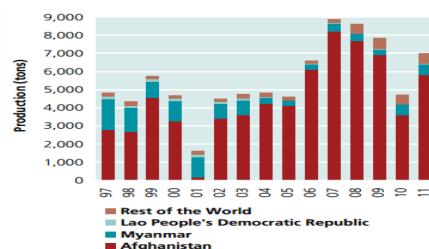


Figure 2. Global Potential Opium Production (From UNODC 2012)

According to Goodhand's analysis of the UNODC report, 3.3 million people in Afghanistan receive their income from poppies. These people include 80,000 farmers, 48,000 itinerant laborers, 20,000 traders and traffickers, plus their families. He also notes that the poppy business is far more profitable than the aid economy.<sup>29</sup>

## 2. Manufacturing

Manufacturing is the conversion of raw materials into consumable drugs. According to the UNODC 2011 report, the country which manufactures the greatest amount of heroin from its poppy crop is Afghanistan.<sup>30</sup> According to the UNODC 2009 report, there were 57 heroin processing laboratories in Afghanistan.<sup>31</sup>

---

<sup>29</sup> Jonathan Goodhand, "Frontiers and Wars: The Opium Economy in Afghanistan," *Journal of Agrarian Change* 5, no. 2 (04, 2005), 207.

<sup>30</sup> *World Drug Report 2011*, 61.

<sup>31</sup> *World Drug Report 2009* UNODC (United Nations Office on Drugs and Crime), 2009.

While examining the total opium production of 2011 (Figure 3), it is estimated that 3,400 tons out of a total 7,000 tons were utilized or shipped as raw opium, and the rest was transformed into heroin. The total heroin produced in 2011 is estimated at 467 tons, as compared to approximately 384 tons in 2010. It was also estimated that a large quantity of Afghan opium was not converted into heroin in 2011, as compared to previous years.<sup>32</sup>

The cumbersome process of pure heroin manufacturing consists of nine stages: extracting the morphine from raw opium, separating the morphine solution from the water-insoluble opium components, treatment of the water-insoluble opium constituents, precipitation-isolation-drying of the morphine, conversion of the morphine into heroin, precipitation and isolation of the brown heroin base, purification of the brown heroin base, precipitation and isolation of the white heroin base, and conversion of the heroin base to heroin hydrochloride.<sup>33</sup>

	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
<b>Total potential opium production</b>	4850	4620	6610	8890	8641	7853	4736	6995
<b>Potential opium not processed into heroin</b>	1197	1169	2056	3411	3080	2898	1728	3400
<b>Potential opium processed into heroin</b>	3653	3451	4555	5479	5561	4955	3008	3595
<b>Total potential heroin manufacture</b>	529	472	629	757	752	667	384	467

Figure 3. Potential Illicit Production of Opium and Manufacture of Heroin of Unknown Purity in Tons (From UNODC 2012)

### 3. Shipment

Shipment refers to the movement of heroin from the origin to the place of demand. The map (Figure 4) from UNODC 2012 report displays that from the production areas, Afghan heroin trafficking routes are mainly distributed in three directions. The first

---

<sup>32</sup> UNODC World Drug Report 2012, 26.

<sup>33</sup> Zerell, Ahrens and Gerz, *Documentation of a Heroin Manufacturing Process in Afghanistan*, 11-31.

route, involving 115 tons, is along the Iranian border, originating from Nimroz, Farah and Hirat provinces. The second route, involving 160 tons, is trafficked to Pakistan, and the third route, involving 90 tons, runs through the central Asian countries of Tajikistan, Uzbekistan and Turkmenistan.<sup>34</sup>

The map displays that along these three main routes, there are multiple illicit organizations involved in the shipment of heroin products. The U.S. counternarcotics agents seized a satellite telephone from a drug smuggler's house in Kabul, which revealed that smugglers repeatedly call terrorist organizations in Western Europe, Turkey, and the Balkans.”<sup>35</sup>

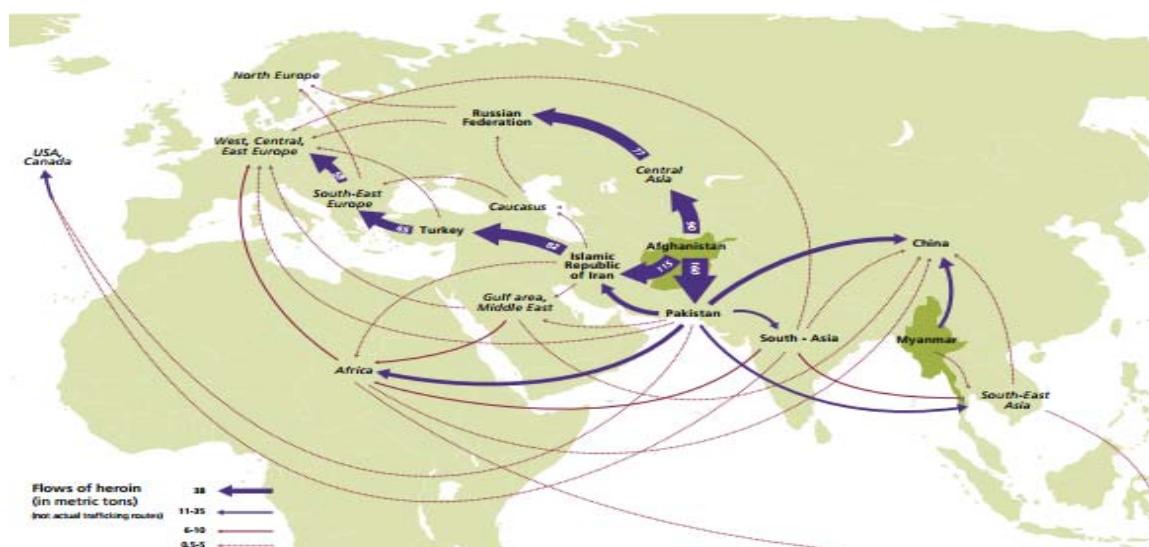


Figure 4. Afghan Heroin Trafficking Routes and Volumes in 2009

(From UNODC 2011)

#### 4. Sale

Sale refers to the middle node between shippers and consumers. This involves the wholesale and retail drug selling process. The graph (Figure 5) from the UNODC 2012 report depicts that Afghanistan opium production has returned to the 2009 level after a

<sup>34</sup> World Drug Report 2011, 71.

<sup>35</sup> Peters, *Seeds of Terror : How Heroin is Bankrolling the Taliban and Al Qaeda*, 3.

drop in 2010, which was caused by disease.<sup>36</sup> Similarly, the U.S. and the European market have also displayed minor change since 2009. However, the farm-gate prices have shown a continuous rise since 2009 in Afghanistan. The rise in price indicates that illegal demand for heroin is increasing despite control over opium production.<sup>37</sup>

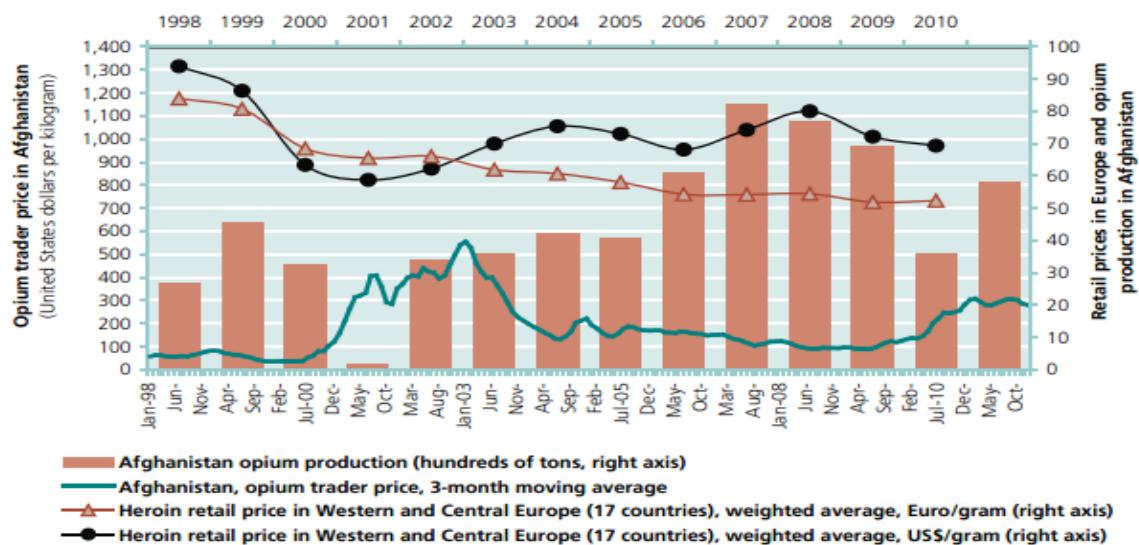


Figure 5. Opium Prices and Production in Afghanistan Compared with Retail Prices of Heroin in Western and Central Europe, 1998–2011 (From UNODC 2012)

## 5. Consumption

Consumption is the last step in the illegal drug trafficking process and is also necessary for completing the supply and demand chain. The main Afghan opium consumption countries are Iran, Pakistan, Central Asian countries and India which has about 5 million users in aggregate. There are fewer opium users in West and Central

Europe (about 1.4 million) than Asian countries, but they are financially more profitable.

<sup>36</sup> UNODC *World Drug Report 2012*, 1.

<sup>37</sup> Ibid.

Therefore, opiates are trafficked towards Western Europe along the Balkan route via Pakistan and Iran.<sup>38</sup>

A United Nations' estimate of annual opiate consumption from 1998 to 2008 reveals an increase of 34.5% from 12.9 million in 1998 to 17.35 million in 2008.<sup>39</sup> According to the UNODC 2012 report, there are approximately 21 million opiates users worldwide suggesting an increase of 21% in consumers from 2008 to 2012.<sup>40</sup> The main reason for such an increase in consumption is the lower price level of illicit drugs.<sup>41</sup>

## **B. THE NEXUS BETWEEN OPIUM AND TALIBAN/PKK FINANCING**

Terrorist organizations use different methods of financing to run their operations. The sources of the Taliban and the PKK financing have been through state sponsorship, popular support, legal and illegal activities; however, both organizations draw their highest revenue from illegal drug trafficking.<sup>42</sup>

### **1. The Nexus between Opium and Taliban Financing**

In a July 2010 U.S. Senate Afghan Counter-narcotics Strategy session, the committee found that "The Taliban is linked to the drug trade at every level from the poppy fields, to the heroin processing laboratories, to the transportation and distribution of the illicit product. The Taliban has become both a terrorist organization and a drug cartel, ideology and greed being their principle motivators."<sup>43</sup>

---

<sup>38</sup> *World Drug Report 2009*, 44.

<sup>39</sup> *War on Drugs Report of the Global Commission on Drug Policy*, 4.

<sup>40</sup> *UNODC World Drug Report 2012*, 26.

<sup>41</sup> *Ibid.* 96.

<sup>42</sup> Peters, *Seeds of Terror : How Heroin is Bankrolling the Taliban and Al Qaeda*, 13, Abdulkadir Onay, "PKK Criminal Networks and Fronts in Europe," *The Washington Institute for Near East Policy*, no. Policywatch 1344 (February 21, 2008).

<sup>43</sup> *U.S. Counternarcotics Strategy in Afghanistan* Senate Caucus on International Narcotics Control, July 2010.

The Taliban over time have tied stronger links with illegal drug trade. In an interview with Peters, Seth Jones, a RAND Corporation Analyst, analyzed that “As the Afghanistan poppy crop explodes past 4 billion a year there is no question, no question at all, that the Taliban has been increasingly involved both directly and indirectly in narcotics.”<sup>44</sup> According to Moore, the Taliban no longer are fighting for Kabul, their tactics have shifted to protecting poppy fields and drug convoys.<sup>45</sup> This is further evidenced by the captured Taliban members’ confessions that the main source of their operational funding’s comes from drug money.<sup>46</sup>

Determining how much the Taliban benefit from the drug trade each year is a matter of great debate and the estimates range from 30 to 200 million dollars annually.<sup>47</sup> Since the Taliban do not have any concrete records available in either handwritten or digital form, it is unlikely that the real figure of drug earning can be calculated with complete accuracy.<sup>48</sup> Nevertheless, in rough numbers the UNODC Addiction, Crime and Insurgency document displays that a decade ago the Taliban earned \$75–100 million per year by taxing opium poppy cultivation; however, since 2005, the Taliban have earned \$90–160 million per year just from taxing opium production and trade.<sup>49</sup> According to our calculation, the Taliban earn approximately \$530–570 million annually from the illegal opium cultivation, manufacturing, and shipment. The breakdown of this money is elaborated in the subsequent paragraphs.

---

<sup>44</sup> Peters, *Seeds of Terror : How Heroin is Bankrolling the Taliban and Al Qaeda*, 11.

<sup>45</sup> Molly Moore, "NATO Confronts Surprisingly Fierce Taliban," *Washington Post* February 26, 2008.

<sup>46</sup> Peters, *Seeds of Terror : How Heroin is Bankrolling the Taliban and Al Qaeda*, 13.

<sup>47</sup> Ibid., 83.

<sup>48</sup> Ibid., 83.

<sup>49</sup> <http://www.unodc.org>, United Nations Office on Drugs and Crime, <http://www.unodc.org/unodc/en/frontpage/2009/October/unodc-reveals-devastating-impact-of-afghan-opium.html> (accessed September 13, 2012).

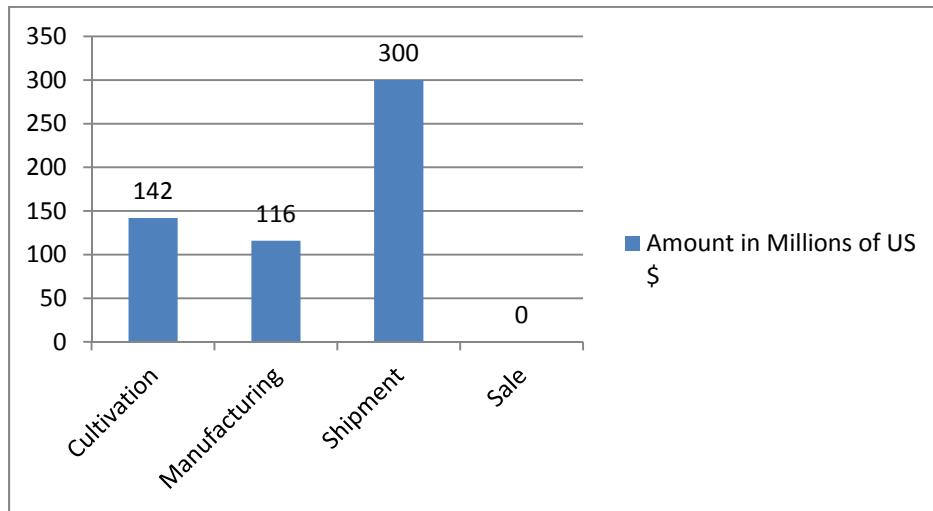


Figure 6. The Taliban’s Annual Opium Revenue Breakdown

#### *a. Cultivation*

The Taliban provide protection and support to Afghan farmers to cultivate poppy crops. Although the Taliban profit by taxing farmers, they have also started their own cultivation of the poppy. The UNODC statistics claim that over time the opium cultivation has increased in the Taliban control regions.

In an analysis of Afghan opium cultivation, Peters described that in 2006 two-thirds of Afghan opium was cultivated in Taliban held areas. In 2007 poppy cultivation in Taliban controlled areas was 70%. However, in 2008 more than 98% of opium cultivation was directly under Taliban control.<sup>50</sup> The UNODC Afghanistan opium survey of 2012 depicts 6 out of 34 provinces cultivate approximately 80% of all Afghan opium.<sup>51</sup> These areas include the Taliban controlled Helmand, Kandahar, Farah, Uruzgen, Nangahar and Nimroz provinces.<sup>52</sup>

Peters states that the Taliban collect a 10% tax (*ushr*) from poppy farmers, and this percentage of taxation is applicable at the farm level only.<sup>53</sup> The UNODC

<sup>50</sup> Peters, *Seeds of Terror : How Heroin is Bankrolling the Taliban and Al Qaeda*, 4.

<sup>51</sup> *Afghanistan Opium Survey 2012*United Nations Office on Drugs and Crime, April 2012.

<sup>52</sup> Peters, *Seeds of Terror : How Heroin is Bankrolling the Taliban and Al Qaeda*, 142.

<sup>53</sup> Ibid., 82.

estimates the Afghan opium yield in 2011 was 5800 metric tons, of which 98% came from the Taliban control regions. The 2011 average farm gate price of opium was 250\$ per kg in Afghanistan.<sup>54</sup> This data reveals that the Taliban have netted approximately \$142 million annually from the opium cultivation process in 2011. The equation for calculating the Taliban's revenue in opium cultivation is depicted below.

<i>10% of opium production in kg.</i>	<i>580,000</i>
<i>x % of opium cultivated land under the Taliban control</i>	<i>x 0.98</i>
<i>x Farm gate price of opium in \$/Kg</i>	<i>x 250</i>
<b>= Cultivation Revenue</b>	<b>\$ 142,100,000</b>

#### *b. Manufacturing*

The Taliban also tax drug manufactures according to the refined end product of the opium crop. In this link of the drug trafficking chain, there is evidence of the Taliban's direct involvement as well. Peters claims that the Taliban mainly receive money by taxing farmers and protecting labs and shipments; however, there are some Taliban commanders who even run their own heroin labs.<sup>55</sup>

Peters observes that the conversion of opium into morphine base is an easy two stages process which requires minimum resources and expertise. However, in the next step of converting morphine into heroin, there are greater difficulties, requirements, resources, and expertise required.<sup>56</sup>

In 2011, the total heroin produced in Afghanistan was estimated around 467 tons.<sup>57</sup> According to Peters, the Taliban control more than 50 laboratories, and tax 250\$ for every kg refined.<sup>58</sup> Therefore, in 2011 the Taliban generated approximately \$ 116 million annually from the manufacturing process. The equation for calculating the Taliban's revenue in opium manufacturing is depicted below.

---

<sup>54</sup> UNODC World Drug Report 2012, 26, 30.

<sup>55</sup> Peters, *Seeds of Terror : How Heroin is Bankrolling the Taliban and Al Qaeda*, 12.

<sup>56</sup> Gretchen Peters, *Interview*, 10 September 2012, 18:00.

<sup>57</sup> UNODC World Drug Report 2012, 28.

<sup>58</sup> Gretchen Peters, *How Opium Profits the Taliban* (Washington D.C.: United States Institute of Peace, August 2009).

<i>Heroin Manufactured in kg</i>	<i>467,000</i>
x <i>% of Heroin labs under the Taliban control</i>	x <i>1.00</i>
x <i>revenue charged by the Taliban \$/kg</i>	x <i>250</i>
= <b>Manufacturing Revenue</b>	<b>\$ 116,750,000</b>

*c. Shipment*

There are three main routes for shipping opium out of Afghanistan. The Taliban either control these routes or provide protection and diversion tactics to ensure safe shipment of the opium. According to the survey conducted by Peters, 65% of the Afghan people believe that the Taliban's main drug activities are focused on providing security to the opium crop and protecting the drug shipments leaving the area.<sup>59</sup>

While discussing the Taliban tactics in the drug shipment process, Peters says that the Taliban attack security checkpoints to ensure the safety of drug trafficking. They even launch diversionary strikes to shift the security forces focus away from a major consignment route. The Taliban escort illegal opium consignments to earn millions of dollars in protection fees, which can be as much as 20% of the complete consignment.<sup>60</sup>

In our assessment, the shipment stage is the node within the drug trafficking process whereby the Taliban generate the highest revenue. According to Peters, "Extrapolating the charges per truck leaving farm areas and protection fees reported to researchers for this study, the Taliban rake in as much as \$250 million more every year providing armed protection for drug shipments moving through their control zones. They also receive tens of millions of dollars' worth of material supplies, including vehicles, food, and satellite phones."<sup>61</sup> According to our calculations, the Taliban generate approximately \$300 million annually from the shipment stage.

<i>Heroin shipped from the Taliban controlled regions in kg</i>	<i>360,000</i>
---	----------------

---

<sup>59</sup> Ibid. 23.

<sup>60</sup> Peters, *Seeds of Terror, How Heroin is Bankrolling the Taliban and Al Qaeda*, 116.

<sup>61</sup> Peters, *How Opium Profits the Taliban*, 23.

x	<i>rate of transport protection fees \$/kg</i>	x	850
=	<b>Shipment Revenue</b>		<b>\$ 306,000,000</b>

*d. Sale*

The Taliban actively involved themselves by either taxing drug traders or directly conducting their own business; however, they always tend to separate themselves from selling these illicit drugs. According to Peters' survey, local people acknowledge the Taliban's role in the drug trade; however, they categorically reject the Taliban's direct involvement in the sale of opium.<sup>62</sup> Therefore, this research does not find that the Taliban gained any revenue from the sale of opium.

*e. Consumption*

If the Taliban members consumed heroin, it could be a financial drain on their organization. However, according to the Taliban ideology and their version of Islam, the consumption of an opiate is prohibited. Griffin discussed the Taliban's version of Sharia Law in which the consumption of opiates is forbidden; however, the production and trade of opium are allowed.<sup>63</sup> Abdul Rashid the Anti-Drug Force Commander of Kandahar, states that the Taliban support the opium trade because it is consumed by infidels in the West, and not by Afghan Muslims.<sup>64</sup> However, it is important to note that heroin consumption has significantly increased in Afghanistan and other Muslim neighboring countries.<sup>65</sup> Regardless, this is not a significant cost to the Taliban.

## 2. The Nexus between Opium and PKK Financing

After leaving Afghanistan, opium travels to different parts of the world. Although the highest demand is in Asia, the greatest profit is generated in the European market. The main route from Afghanistan to Europe is via Iran, through Turkey, to the Balkan

---

<sup>62</sup> Peters, *Seeds of Terror, How Heroin is Bankrolling the Taliban and Al Qaeda*, 117.

<sup>63</sup> Michael Griffin, *Reaping the Whirlwind : The Taliban Movement in Afghanistan* (London; Sterling, Va: Pluto Press, 2001), 153.

<sup>64</sup> Peters, *Seeds of Terror : How Heroin is Bankrolling the Taliban and Al Qaeda*, 68.

<sup>65</sup> UNODC *World Drug Report 2012*, 77.

regions. It is along this route that the PKK is the most active organization and gains the highest benefit. There is also a direct link between the Taliban and the PKK. Haji Bashir confessed in front of the DEA officials that the Afghan smuggler would pass the opium to PKK agents who would move these drugs to the European countries.<sup>66</sup>

There are numbers of investigations, reports, analyses, and confessions which have identified PKK involvement in the illegal drug trade. According to the U.S. State Department reports, the PKK use heroin production and trafficking to support its terrorist activities. These reports not only indicate the PKK's direct involvement in transporting and marketing narcotics in Europe, but also reveal indirect taxations on drug traders to finance terrorist actions.<sup>67</sup> After the capture of Abdullah Ocalan, the PKK increased their involvement in the drug trade, which is evident by the large number of drug seizures in Europe between 2004 and 2005. The BBC claimed 80 % of the European drug market was controlled by the PKK.<sup>68</sup>

There are numerous claims of the PKK's revenue being derived from the illegal drug trade, which vary from \$50 million<sup>69</sup> to \$2.5 billion<sup>70</sup>. According to our calculation made from the 2010 report, the PKK generates approximately \$600 - 700 million annually from illegal heroin trade.

---

<sup>66</sup> Peters, *Seeds of Terror : How Heroin is Bankrolling the Taliban and Al Qaeda*, 74.

<sup>67</sup> Roth and Sever, *The Kurdish Workers Party (PKK) as Criminal Syndicate: Funding Terrorism through Organized Crime, A Case Study*, 907, 908.

<sup>68</sup> Sedat LACINER, "Drug Smuggling as a Means of PKK Terrorism," *Usak.Org.Tr* (30 October 2008, , 08.17.2012.

<sup>69</sup> UNODC, *UNODC TOCTA (the Globalization of Crime: A Transnational Organized Crime Threat Assessment Report)* United Nation Publications, 2010.

<sup>70</sup> Soner Cagaptay, "Can the PKK Renounce Violence? Terrorism Resurgent," *The Middle East Quarterly* XIV: Number 1, no. Winter 2007, 45-52.

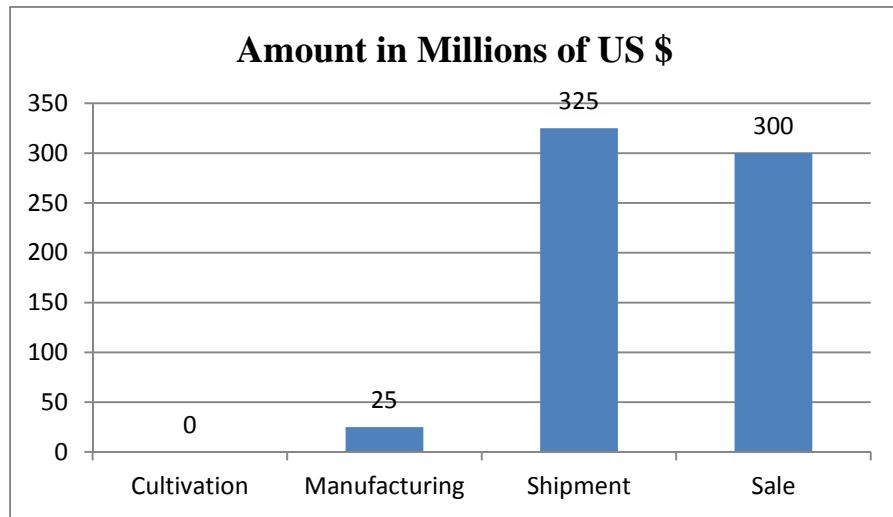


Figure 7. The PKK's Annual Opium Revenue Breakdown

#### *a. Cultivation*

Laciner claims that the PKK started to produce opium poppies under Syrian control beginning in 1982.<sup>71</sup> Similarly Sehirli states that the PKK produced 60 tons of heroin and hashish annually in the Bakaa Valley in Lebanon during the 1980s and early 1990s.<sup>72</sup> According to Soylemez, the PKK is also involved in opium plantations within the rural areas of Turkey. He claims that due to financial troubles, the PKK have become actively involved in the cultivation of opium since 2004.<sup>73</sup> However, these claims about the PKK's involvement in opium cultivation could not be further substantiated.

#### *b. Manufacturing*

The PKK directly or indirectly involve themselves in the opium manufacturing process. They either own or tax the drug laboratories situated in different regions under their control. According to Laciner, the PKK constructed heroin processing

<sup>71</sup> Laciner, *Drug Smuggling as a Means of PKK Terrorism*, August 17, 2012.

<sup>72</sup> Anil Karaca and Naval Postgraduate School (U.S.), *Disrupting Terrorist Networks [Electronic Resource] : An Analysis of the PKK Terrorist Organization* (Monterey, California: Naval Postgraduate School, 2010), 58.

<sup>73</sup> Hasim Soylemez, "PKK Finances Terrorism through Drug Trafficking," *Todayszaman* November 13, 2011.

laboratories in the late 1980s to draw the greatest benefit from the opium drug trade.<sup>74</sup> The U.S. Treasury Department highlights that the PKK processes the morphine base received from Afghanistan into heroin at the laboratories situated in Turkey, and they sell it throughout Europe.<sup>75</sup>

According to Mandalawi, the PKK possesses heroin labs in the mountains of Turkey.<sup>76</sup> However, Laciner claims that the PKK not only possesses labs in Turkey, but also has constructed drug laboratories in some East European countries.<sup>77</sup> Similarly, Aktan and Koknar claim that in addition to laboratories in Turkey, the PKK also possesses heroin labs in Northern Iraq.<sup>78</sup>

According to Observatoire Geopolitique Des Drugs (OGD), the PKK has set up opium laboratories in areas under its control, and an official Turkish report reveals that 18 people, among others, arrested in 15 different lab cases were found to be members of the PKK.<sup>79</sup> Apart from owning laboratories, Solomon claims that the PKK receives protection tax money from drug labs in the eastern part of Turkey.<sup>80</sup> A convicted drug criminal confessed that the PKK imposed 1000 DM (approximately \$500) per kg commission on heroin producers.<sup>81</sup> According to our calculation, the PKK generates approximately \$25 million annually from the heroin manufacturing process. The equation for calculating the PKK's revenue in opium manufacturing is depicted below.

---

<sup>74</sup> Laciner, *Drug Smuggling as a Means of PKK Terrorism*, August 17,.2012.

<sup>75</sup> Benjamin Freedman and Matthew Levitt, "Contending with the PKK's Narco-Terrorism " *The Washington Institute Improving the Quality of U.S. Middle East Policy* Policy #1611 (December 8, 2009)..

<sup>76</sup> Sazan M. Mandalawi, "How Accurate is it to Describe the PKK as a Narcoterrorist Organization?" *Drugs and Narcoterrorism the University of Nottingham* (Autumn 2011), 3, 4.

<sup>77</sup> Laciner, *Drug Smuggling as a Means of PKK Terrorism*, August.17.,2012.

<sup>78</sup> Yonah Alexander, ed., *Combatting Terrorism Strategies of Ten Countries* University of Michigan Press, 2002), 291.

<sup>79</sup> Fuat Salih Sahin, "Case Studies in Terrorism-Drug Connection: The Kurdistan Workers' Party, the Liberation Tigers of Tamil Eelam, and the Shining Path " *The University of North Texas*, 45.

<sup>80</sup> Ibid.50.

<sup>81</sup> Behsat Ekici, Phil Williams and Ayhan Akbulut, "The PKK and the KDSs: Cooperation, Convergence Or Conflict?" in *The PKK Financial Sources, Social, and Political Dimensions*, eds. Charles B. Strozier and James Frank (USA, UK: VDM Verlag Dr. Muller, 2011), 150.

<i>Heroin Manufactured in kg</i>	<i>50,000</i>
<i>x % of Heroin labs under the PKK control</i>	<i>x 1.00</i>
<i>x revenue charged by the Taliban \$/kg</i>	<i>x 500</i>
<b>= Manufacturing Revenue</b>	<b>\$ 25,000,000</b>

*c. Shipment*

According to Laciner, the PKK found themselves to be luckily located on the route of the “Golden Crescent” for drug smuggling between the opium producing East and the heroin consuming West. He argues that in the beginning of the 1980s, the PKK started to gain huge wealth from drug taxation in their controlled regions. However, when the PKK diaspora increased in the Western European countries, the drug shipment process became easier for them.<sup>82</sup>

According to Laciner, Turkey is not a significant drug consuming country, but it does contribute to drug transportation.<sup>83</sup> Freedman and Levitt argue that the PKK gets its highest profit by taxing the drug smugglers in their controlled regions, and this taxation serves as a crucial income source for the group.<sup>84</sup> The convicted drug criminal noted earlier confessed that the PKK imposed a 10% tax on heroin traffickers.<sup>85</sup> According to our calculation, the PKK generates approximately \$325 million annually from the shipping of heroin, in addition to wholesale revenue.<sup>86</sup> The displayed figures in the calculation of shipment revenue equation is for Norway only. However, a similar procedure is adapted for calculating the PKK’s revenue generated from the rest of the European countries. In our calculation, the wholesale revenue is added into shipment revenue because the heroin has not yet reached the consumers.

---

<sup>82</sup> Laciner, *Drug Smuggling as a Means of PKK Terrorism*, August.17.,2012.

<sup>83</sup> Ibid.

<sup>84</sup> Freedman and Levitt, *Contending with the PKK's Narco-Terrorism*.

<sup>85</sup> Ekici, Williams and Akbulut, *The PKK and the KDSS: Cooperation, Convergence Or Conflict?*, 150.

<sup>86</sup> Detailed statistical calculation can be requested via authors’ emails (khan@nps.edu and oer@nps.edu).

<i>Total Heroin Trafficked on the Balkan Route</i>	80,000
x <i>Est. PKK's Control at the Turkish Border</i>	x 0.8
x <i>Taxation Rate</i>	x 0.1
x <i>Percentage Value of the Smuggled Heroin by the PKK</i>	x 0.2
x <u><i>Price of 1 kg of Heroin in the Afghan Wholesale Market</i></u>	x 2400
<b>= Taxation Revenue</b>	<b>3,072,000</b>

**PLUS**

<i>Amount of Heroin reaches to European Country(eg Norway)</i>	1000
x <i>Prevalence Ratios of each European Country</i>	x 0.0003
x <i>15–64 Population of each European Country</i>	x
2,195,734	
x ( <i>Total Population of each Country/ Kurdish Diaspora</i> )	x (3,182,224/12447)
x <i>Est. Market Control of the PKK</i>	x 0.0073
x ( <i>If Diaspora Ratio &lt; 0.005, Est. Wholesale Share of the PKK, (1-Retail Share of the PKK)</i> )	x 0.0025
x <u><i>Wholesale Price of the Heroin for each Country</i></u>	x 22120
<b>= Wholesale Revenue</b>	<b>6,798,566</b>

**d. Sale**

The PKK is actively involved in heroin sales across Europe, utilizing their diaspora. They also tax other drug sellers, and generally control nearly all of the European heroin market. According to Soylemez, one of the PKK militants has confessed to the organization's dominance in the European drug trade. He reveals that all the drug dealers have to pay a 10 percent share of every sale to the organization, and the entire drug trafficking process is controlled solely by the PKK.

The PKK utilizes its diaspora for controlling the street level sales of illegal drugs in the European market.<sup>87</sup> Even Kurdish children from 10–15 years old are

---

<sup>87</sup> *Narco-Terrorism (Global and Regional Overview)*.

involved in selling drug in many European cities.<sup>88</sup> Similarly, the heavy PKK involvement in the drug trade is evidenced by the number of PKK members being captured in various European cities and Turkey.<sup>89</sup> According to our calculations, the PKK earns approximately \$300 million annually from heroin street sales revenue.<sup>90</sup> The displayed figure in the calculation of the sale revenue equation is for Norway only. However, the similar procedure is adapted for calculating the PKK's revenue generated from the rest of the European countries.

<i>The Amount of Heroin reaches to Europe(eg Norway)</i>	<i>1000</i>
<i>x Prevalence Ratios of each European Country</i>	<i>x 0.0003</i>
<i>x 15–64 Population of each European Country</i>	<i>x 2,195,734</i>
<i>x (Total Population of each Country/ Kurdish Diaspora)</i>	<i>x (3,182,224/12447)</i>
<i>x Est. Market Control of the PKK</i>	<i>x 0.0073</i>
<i>x If Diaspora Ratio &gt;=0.005, then PKK Est. Retail Share, otherwise, "0"</i>	<i>x 0.0021</i>
<i>x Retail Price of the Heroin for each country x 1000 (tons into Kgs)</i>	<i>x 45 x 1000</i>
<b>= Street Level Sales Revenue</b>	<b>11,617, 802</b>

#### e. Consumption

The PKK motivates people to consume illicit drugs because of the maximum money generated by utilizing drug addicts to fulfill the organization's political objectives. According to Soylemez, two drug dealers confessed that the PKK gives drugs to young people in the East and Southeast part of the Turkey as a reward for participating in pro-PKK demonstrations. Another PKK militant also confessed that some members of the PKK are addicted to drugs, and the organization can convince them to conduct any criminal activity in return for drugs. He also confessed that the PKK is not only selling drugs in Western European cities, but also poisoning Kurdish children as well. In the Hakkari district, the average age of drug consumers is 14 years old and an estimated 45

---

<sup>88</sup> Laciner, *Drug Smuggling as a Means of PKK Terrorism*, August 17,.2012

<sup>89</sup> Ibid.

<sup>90</sup> Detailed statistical calculation can be requested via authors' emails (khan@nps.edu and oer@nps.edu).

percent of the people in this age group are addicted to illegal substances.<sup>91</sup> Over the long run, the PKK would suffer a significant cost due to this action.

---

<sup>91</sup> Soylemez, *PKK Finances Terrorism through Drug Trafficking*.

THIS PAGE INTENTIONALLY LEFT BLANK

### III. NARCOTERRORISM ANALYSIS

In the previous chapter, the extent of the Taliban's and the PKK's involvement in the drug trafficking process (cultivation, manufacturing, shipment, sale, consumption) was explored. In this chapter, the Taliban and the PKK's involvement in the narcoterrorism process will be analyzed and suitable recommendations for reducing these terrorist organizations' funds raised through the drug trafficking process will be suggested. This chapter also introduces a viable counter narcotics model which provides a reasonable solution for cutting the links between drugs and terrorists.

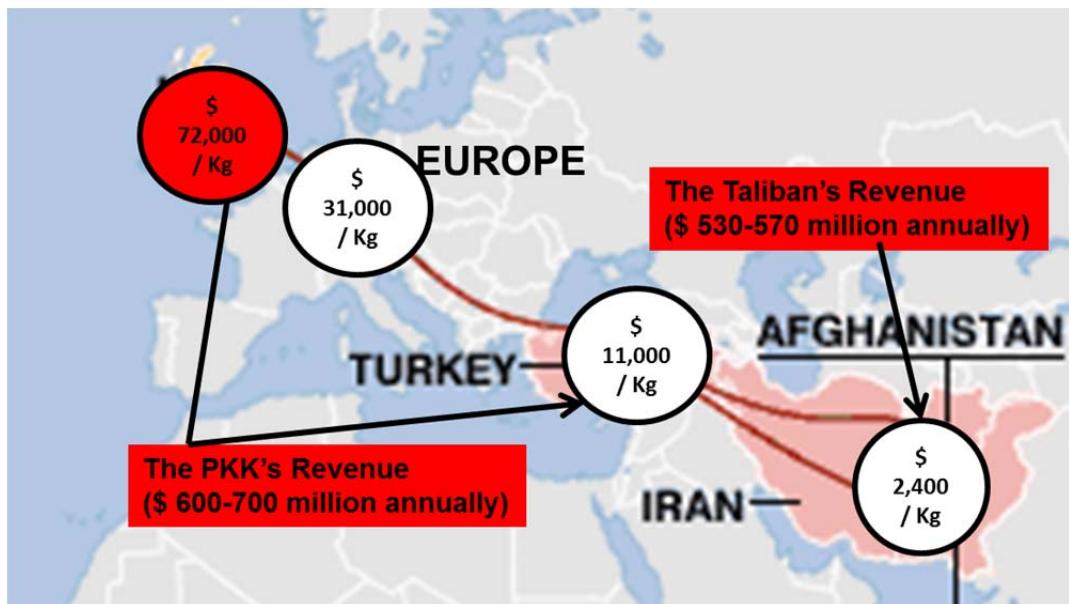


Figure 8. The Heroin Balkan Route and Price from Farm Gate to the Street Level

The map (Figure 8) displays the price of one kg of heroin at different places. The price of heroin is exponentially increased from its origin (Afghanistan) to the street sale in Europe. The map also depicts the amount of money the Taliban and the PKK generate from this illegal trade. Therefore, it is important to critically analyze each stage of the heroin trade in order to deduce effective countermeasures against it.

## A. THE TALIBAN ANALYSIS

After the Taliban's fall from power in 2001, the U.S. and its allies announced that confronting the Afghan opium trade would be a top priority during the Afghan re-establishment and reconstitution phase. During the Bush Administration, counter narcotics policy was basically focused on poppy eradication and drug interdiction. However, the Obama Administration changed the policy to crop substitution and alternative livelihood programs. This policy change was made to provide benefits to poor Afghan farmers who had started to support anti-government groups due to the poppy eradication campaign.<sup>92</sup>

The climate conditions of Afghanistan are ideally suited for growing poppy crops. This crop is drought resistant, has a high weight-to-profit ratio, has a high market demand, and does not require safe handling during transportation. Targeting the cultivation stage is difficult due to the vastness of the area where the poppy crops are grown in the ungoverned zones. The country's poor economy, weak governmental control, scarcity of alternative crops, and the incomparable profits of the opium trade motivate millions of farmers to harvest the poppy crop. The eradication of the opium crop would mostly affect the poor Afghan farmers, and negligibly affect the drug traders as they would increase the price of opium to minimize their losses and would also utilize the opium stockpile (as witnessed in 2001). Since an eradication campaign lowers the poppy yield, the Taliban generate less revenue on their fixed 10 percent taxation on the opium crop. Nevertheless, the eradication campaign can motivate poor farmers to support the Taliban, which is the biggest challenge for the counter terrorist strategy.

The Taliban gain approximately 21% of their opium drug money from the manufacturing stage. Heroin manufacturing labs are mostly located in Taliban-controlled regions; however, these labs are few, countable and targetable. The process of establishing and relocating these labs is very difficult. Moreover, the heroin manufacturing is also a difficult process which requires professional expertise and rare

---

<sup>92</sup> Christopher M. Blanchard , "Afghanistan: Narcotics and U.S. Policy" Congressional Research Service, April 21, 2009.

chemicals. The 2011 UNODC report reveals that half of the opium production was processed into heroin, and the other half was not, which implies that the opium not processed is kept in storage for manufacturing into heroin for future security or wealth. As compared to the cultivation stage, there are fewer ordinary people involved in this stage. Therefore, targeting this stage will cause less resentment, and it will also not result in the loss of popular support for the government. From the vast poppy fields, the opium yield is directed to a few heroin labs, which makes this stage vulnerable for targeting.

The Taliban earn approximately 54% of the opium drug money from the shipment process, which makes that stage the most lucrative. However, the shipment stage is difficult to target due to the harsh geographical conditions involved along the shipment routes, the ungoverned zones, and the numerous alternative routes available. For the Afghan opium trade, shipment is the most dangerous stage for the professional drug traffickers who are vulnerable to capture by law enforcement agencies. The Taliban mostly involve themselves indirectly by providing protection for these drug convoys. The element of trust and secrecy amongst various participants is essential for the safe shipment of drugs. The drug traffickers prefer to smuggle heroin as compared to morphine or raw opium, due to the relatively small size, better odor, higher profit, and lower probability of being caught. This particular aspect also benefits the Taliban as they generate more taxation money from heroin shipments as compared to morphine or opium. In contrast to the cultivation stage, but similar to the manufacturing stage, there are only criminals and terrorists involved in this stage. Therefore, targeting this stage likely will not cause resentment or loss of the government's popular support.

The Taliban consider the selling and consumption of opium products to be against the Islamic ideology; therefore, they tend to separate themselves from selling or consuming these illicit drugs. We did not find any concrete evidence of the Taliban's direct or indirect involvement in the process of opium sale and consumption. The Taliban considered this trade as legitimate because they think the "western infidels" will be harmed by opium consumption. However, the consumption of opium by both Muslims in Afghanistan and its neighboring countries has significantly increased. Therefore, there is a need for a strong media campaign projecting the Taliban's contributions to increased

opium consumption by Muslims. This campaign will expose the Taliban's false ideological Islamic concept and will help turn popular support against them. Counter narcotics and law enforcement agencies have attacked the opium supply without causing any drop in the demand for heroin. The opium eradication campaign has led to the increased farm-gate price of the poppy, thus further increasing the incentive for Afghan farmers to plant. Wide-scale spraying has also resulted in increased profit to the Taliban, and increased sufferings for the Afghan farmers. The net outcome of falling supply and constant demand (as displayed Figure 3–2) has been a rise in the price of heroin. This has led to increased production to meet future demand.

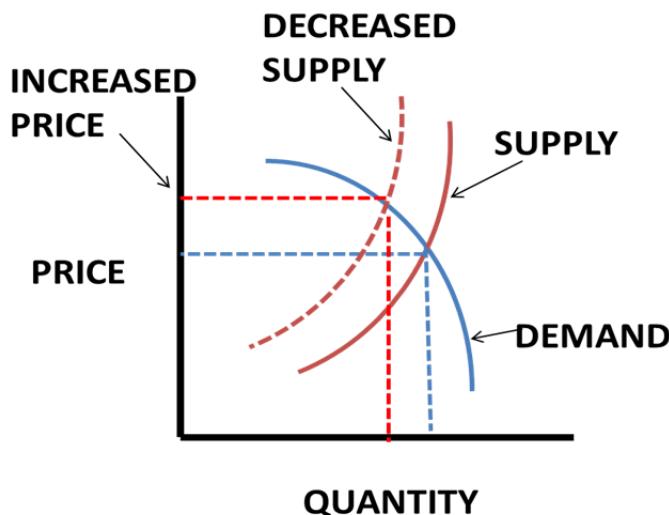


Figure 9. Heroin Supply and Demand Chain.

Figure 9 describes the heroin supply and demand curves. The horizontal axis represents the quantity and the vertical axis represents the price of heroin. The demand curve denotes the quantity of heroin desired by buyers, and the desired quantity is the amount of heroin people are ready to buy at a certain price. The supply curve denotes the quantity of heroin being offered by the producers, and this offered quantity is the amount

of heroin products that producers are ready to supply while receiving a certain price. As a result of this relationship, the price is a reflection of both supply and demand.<sup>93</sup>

Suppose that 1 kg of heroin is consumed by 100 individuals, and the price established by the supply and demand curve is \$70 per gram. By only reducing the supply (say 500 gram) and not reducing the demand (the same 100 individuals), the price will increase two times as compared to previous values (\$140 gram). It is evident that even if we reduce the supply (producers') side without reducing the demand (consumers), the terrorist groups and the drug dealers will still be able to accrue their revenue from the heroin trade.

---

<sup>93</sup> Robert Looney, “The Politics of Global Economic Relations” (lecture, Naval Postgraduate School, Monterey, CA, 01 October 2012).

<b><i>Stages</i></b>	<b><i>Involvement</i></b>	<b><i>Percentage</i></b>	<b><i>Members</i></b>	<b><i>Strength</i></b>	<b><i>Weakness</i></b>
<b><i>Cultivation</i></b>	Indirect	Quarter	Tax Collectors and Protectors	Controlled land, ideal climate condition, poor farmers' needs, eradication increased the Taliban's popular support	Alternative Livelihood Program
<b><i>Manufacturing</i></b>	More Indirect, Less Direct	Almost Quarter	Tax collectors, protectors, a few lab owners	Labs in ungoverned zones, ample opium availability	Only a few labs, difficult to establish and relocate, chemical availability, targeting labs does not affect the Taliban's popular support
<b><i>Shipment</i></b>	Mostly Indirect	More than half	Tax collectors and protectors	Adverse geographical condition, Alternative routes, ineffective LAEs	Increased risk involved in protection, targeting shipment does not affect the Taliban's popular support
<b><i>Sale</i></b>	No	Nil	No	-	-
<b><i>Consumption</i></b>	No	Nil	No	Increased Western consumers increase the Taliban's popular support	Increased Muslim consumers decrease the Taliban's popular support

Table 1. Summary Analysis of the Taliban

## **B. THE PKK ANALYSIS**

The PKK's initial involvement in the drug trade was mainly indirect. However, with the passage of time they have started to actively participate in the lucrative drug trade. This has led to the PKK being a financially strong and politically weak terrorist organization. The rough geography of the PKK dominated regions provides natural safe havens for conducting the illegal drug trade. Moreover, the PKK effectively utilizes the destitute Kurdish diaspora in European countries to run the drug business.

During the 1980s and 1990s, the PKK was directly involved in opium cultivation; however, they are no longer able to cultivate opium due to the Turkish government's effective policies and lack of state sponsorship. As compared to Afghanistan, the climatic conditions in the PKK dominated area are not considered suitable for poppy growth. We were unable to find any conclusive evidence of funds being generated by the PKK through opium cultivation.

The PKK generates only 4% of its opium drug money from the manufacturing stage. The PKK's lack of ability to cultivate opium and its dependence on Afghan opium causes only marginal revenue to be generated from this stage. Although, the transportation of acetic anhydride from European countries to Turkey is relatively easier compared to Afghanistan, most of the opium is already in the form of heroin when it gets to Turkey. As compared to the Taliban, the PKK's involvement in the manufacturing stage is significantly lower; however, it is possible that the PKK will enhance its direct involvement due to the lucrative incentives in this stage.

According to UNODC 2010 report, the PKK generates approximately 50% of its opium drug money from the shipment process, which makes it the most lucrative stage for the PKK. The PKK has the inherit advantages of a central location in between the highest production and the maximum revenue collection zones. Initially, the PKK preferred to tax heroin smugglers, since shipment is the riskiest stage and they are vulnerable to capture by law enforcement agencies. Recently, however, the PKK has begun actively involving themselves in heroin shipments due to the lucrative nature of this stage. The PKK has an advantage given the shipment routes in the Northern Iraq, the presence of ungoverned zones, which provide safe havens, and the availability of numerous alternative routes. The PKK's active involvement in the heroin shipment stage is supported by their well-established members and their diaspora

presence in both the Middle East and Europe. The PKK faces a disadvantage, though, in that capable Turkish Law Enforcement Agencies (LEAs) have seized almost twice as much heroin as all the entire European LEAs.<sup>94</sup> The risk of direct involvement in drug trafficking is higher than the risk of indirect involvement by terrorist organizations. Therefore, as a counter narcoterrorism approach, this study recommends influencing the PKK to shift from indirect to direct involvement in the drug trade. This can be achieved by sowing distrust within the PKK and the drug dealers. Both groups have a natural alliance, but lack trust. This weak and vulnerable link can be targeted by running a strong information campaign which can lead to decoupling the link between the two groups. This action will lead the PKK to a more active involvement in the shipment stage and will make them turn away from their ideology.

According to UNODC 2010 report, the PKK earn approximately 46% of their opium drug money from the sale of heroin products in Europe. Recently, the PKK have increased their direct involvement, due to the huge amount of money involved in this stage. The PKK not only utilize their well trained personnel, but also force Kurdish immigrants living in Europe to become involved in heroin sales. The PKK can easily find street sellers, due to plenty of unemployed and poor Kurdish immigrants in Europe. Moreover, these immigrants do not hesitate to utilize their children in drug sales since their age protects them from being criminally responsible for such acts. In addition, the PKK can easily recruit new street dealers from the refugee camps and cultural clubs. As a result, the PKK are less vulnerable in the street sale stage due to the abundance of personnel available to replace the captured sellers. On the other hand, the PKK has lost the political support of European and the U.S. governments due to their conversion into a criminal organization.

---

<sup>94</sup> *UNODC World Drug Report 2012*, 32.

	<b>Involvement</b>	<b>Percentage</b>	<b>Members</b>	<b>Strength</b>	<b>Weakness</b>
<b>Cultivation</b>	No	-	No	No	Land availability, Adverse climate condition
<b>Manufacturing</b>	Less	Very Less	A few tax collectors	Easy access to chemicals	Less raw opium availability
<b>Shipment</b>	More Indirect, Less Direct	Half	Tax collectors and shippers	Central location, Alternative routes	Effective Turkish LEAs
<b>Sale</b>	Less Indirect, More Direct	Nearly Half	Street sellers and tax collectors	Well established members and diaspora	Loss of the PKK's political support by European (western) governments
<b>Consumption</b>	Yes	-	Promoters of addiction	More addict members	Loss of the PKK's popular support by European nations

Table 2. Summary Analysis of the PKK

### C. COUNTER NARCO-TERRORISM SOLUTION MODEL

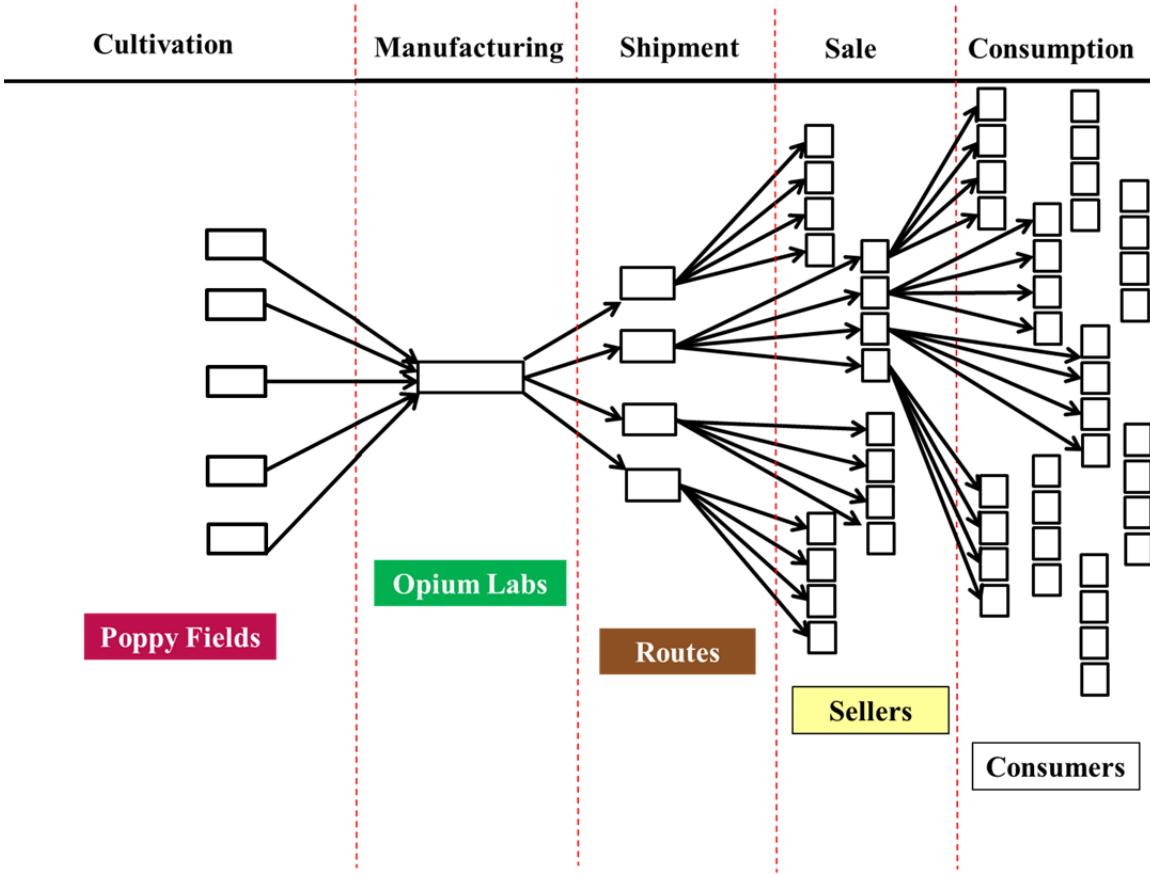


Figure 10. Counter Narcoterrorism Solution Model

The process of narcoterrorism diverges or converges at each stage. Figure 10 displays the counter-narcoterrorism model from opium cultivation to street level sale. The opium from the wide-spread poppy field converges at a few, countable, and targetable heroin manufacturing labs. The heroin products follow an ongoing diverging path from manufacturing to selling stage. This path also splits into smaller sub nodes which make the act of interdiction very difficult. It is important to note that the heroin manufacturing stage is the only stage in the process where the path converges. Therefore, it is suggested that targeting the manufacturing stage would result into an effective way of reducing the terrorist funding raised through opium money.

The solution model proposes that the cultivation stage should not be targeted, as it is not cost effective due to the huge amount of time and resource requirements. Instead of aggressive eradication campaigns in Afghanistan, the policy of crop substitution and alternative livelihood programs will make the Taliban vulnerable due to the loss of the much needed popular support from the millions of Afghan farmers. In contrast, the PKK are not vulnerable in the cultivation stage of the drug trafficking process since they are not involved in it.

This model proposes that the manufacturing stage should be targeted as it is the only stage where the products are converged into a few targetable facilities. Although the manufacturing stage only accounts for approximately one fifth of the total opium revenue generated by the Taliban, it can cut the Taliban's finances raised through the rest of the drug trafficking chain. With less heroin produced in Afghanistan, the PKK funding would be substantially reduced as well. However, the PKK is comparatively less vulnerable in the manufacturing stage of the drug trafficking process since they tax or run only a few heroin processing labs. Nevertheless, this model suggests that an increase in the PKK's involvement in the heroin manufacturing stage will make them more vulnerable to counter terrorism efforts.

This model proposes that the shipment and the sale stage should not be targeted, as it diverges into many smaller nodes which are difficult to target and also are not considered cost effective due to the huge amount of time and resource requirements needed. The Taliban and the PKK are less vulnerable in the shipment stage due to the availability of alternative routes and dispensable personnel. The Taliban do not involve themselves in the heroin sale stage; however, the PKK actively participate in the street level sale of heroin. The shipment and sales stage interdiction efforts have not been effective since even the large number of seizures of heroin products and the capture of numerous heroin sellers has not stopped the PKK from conducting heroin shipments and sales.

## **D. RECOMMENDATIONS**

The countermeasures which effect the terrorist organizations the most involve reducing their drug money. This thesis establishes that both the Taliban and the PKK gain huge amounts of money from the heroin trade. Therefore, there is a strong need to combat the illegal opium trade, and it requires a long term commitment, policy amendments, effective law enforcement agencies, and international cooperation.

### **1. Targeting the Manufacturing Stage**

According to this thesis finding, targeting the manufacturing stage is not only cost effective, but also a viable option. As compared to other drug trade stages, this stage is the only one where the products are converged into countable and targetable laboratories. Targeting cultivation, shipment, and sale stages would require comparatively more resources when compared to targeting the manufacturing stage. Attacking this stage also substantially reduces both the Taliban and the PKK's drug money since it directly affects the rest of the drug trafficking chain.

Through intelligence, the exact locations of the heroin laboratories can be traced. The laboratories located in the governed zones should be targeted with the combined help of local and international law enforcement agencies. The main aim of this ground raid is to physically destroy the labs and make them permanently unusable. The labs located in the ungoverned zones should be targeted by international coalition air strikes.

Heroin manufacturing requires specific precursors which mostly originate from Europe. Therefore, there is a strong need for a policy describing these precursors as illegal substances. By stopping the precursors from reaching the heroin laboratories, the manufacturing stage will become very difficult. These precursors should be treated in a similar manner to illegal drugs. This banning of precursors will create an obstacle for terrorist organizations in heroin manufacturing. In order to develop a strategy for precursors' seizures, it will be necessary to identify the agents, possible routes and methods of transportation of these chemicals, and subsequently launch a comprehensive attack against all nodes of a precursor shipment.

## **2. Strong Information Campaign**

A strong information campaigns against the terrorist organizations can not only portray a negative image, but also result in an effective counterterrorism policy. This information campaign should include propaganda programs against the terrorist organizations through several media tools. These tools should include televisions, radio broadcasts, videos, blogs, pamphlets, and social media.

The supply and demand chain can also be targeted by a strong information campaign. By collecting undeniable evidence that proves the terrorist organization's involvement in the illegal drug trade, such a campaign can result in the loss of the terrorist organization's ideology and credibility. Their drug trade involvement being projected in media resulted in the loss of support among their sympathizers and supportive governments. This campaign resulted in the loss of the PKK's members and supporters due to a realization of the shift in their ideology.

The information campaign must include attempts at reducing the demand for heroin. Focusing on the youth of the society is very critical and can yield positive results against the drug trade. This reduction of demand not only helps in building a healthy society, but also reduces the terrorist organization's drug money.

## **3. Policy Measures**

Despite the concentrated efforts of international agencies and governments, there is no evidence of success against narcoterrorism. A long-term policy of alternative livelihood program is effective and needs to continue. Eradication of drugs can be a part of the policy if it is only implemented in areas that are free of terrorist activities and where sufficient alternatives are available to the farmers. The present alternative livelihood policy in Afghanistan should continue as an effective and long-term narcoterrorism countermeasure. This long term policy decreases the amount of opium yield, which reduces the funds of terrorist organizations. The other strategic effect this policy gains is a loss of much needed popular support for a terrorist organization.

#### **4. Increasing National and International Efforts**

Enhanced international focus and concentrated efforts are required to effectively fight against narcoterrorism. These efforts should also be centralized under one principal agency chartered to lead the effort, and they will require effective monitoring, coordination, intelligence, and additional funding and personnel. These increased efforts would hurt the terrorist organization's finances and should include illegal money laundering, reduction of ungoverned zones, and efforts to disrupt the focus of terrorist organizations.

Although this thesis does not address the money transferring method of terrorist organizations, all viable measures against money laundering should be actively incorporated against terrorist organizations' funding. Terrorist organizations need to regularly transfer huge amounts of drug money from one place to another. This laundering of suspicious transactions requires monitoring from financial institutions and other regulatory authorities. Therefore, there still exists a need for enhanced transparency and integrity of financial institutions for effectively countering this threat.

International effort is also required in decreasing the ungoverned zones where this illegal drug is cultivated, manufactured, and trafficked. The ungoverned zones for opium trade include Afghanistan and Iraq, which are beneficial to drug dealers as well as terrorist organizations. These measures can shrink the terrorist organizations' capacity and reduce their illegal finances.

The international effort should also try to disrupt the focus of terrorist organizations. The risk of direct involvement in drug trafficking is higher than the risk of indirect involvement by terrorist organizations. Therefore, as a counter narcoterrorism approach, states should influence terrorist organizations to shift from indirect to direct involvement in the drug trade. This can be achieved by sowing distrust within the PKK and the drug dealers. This action will make them more vulnerable and effectively reduce their drug money.

## **E. CONCLUSION**

After the Cold War, states generally stopped financing terrorist organizations, and that change led these organizations to finance their activities on their own. Terrorist organizations utilize a number of illegal sources to generate funds; however, they become even more devastating when combined with illicit drug trafficking. Due to the huge financial benefit of the illegal drug trade, terrorist organizations are able to acquire sophisticated weapons and continue their illegal activities. The link between terrorist organizations and illegal drugs must be cut to effectively fight against terrorism. While there exists no doubt for the need to eliminate both threats, it is not an easy task and requires a significant amount of resources and effort. The best way to hurt both threats is to target their finances because they simply cannot function efficiently without money.

This thesis focuses on the Taliban and the PKK's involvement in the opium trade. This thesis fills a gap by illustrating the extent to which terrorist organizations use drugs to raise funds in five stages of the heroin trade, which include cultivation, manufacturing, shipment, sale, and consumption. The Taliban and the PKK generate huge amounts of money from the opium trade. The Taliban makes most of its money from the cultivation, manufacturing, and shipment stages; however, the PKK earns its funds from the shipment and sale of heroin. These two terrorist organizations have their peculiar strengths and weaknesses which are identified in this thesis. The identification of weak and vulnerable links between terrorist organizations and drug trafficking can help law enforcement, drug control and monetary agencies combat this menace effectively.

The counter narcoterrorism solution model displays both the convergent and divergent stages of the opium trade. The manufacturing stage is the only stage where the products converge into countable and targetable laboratories. This model identifies that targeting the opium manufacturing process is not only cost effective, but also reduces both the Taliban's and PKK's illegal funds. This model can be applied to other terrorist organizations and other drugs of the world for the purposes of identification and reduction of funds generated through the drug trafficking process.

Lastly, this thesis does not try to solve drug abuse problems, but attempts to reduce the funds received by terrorist organizations through illegal drug trafficking. This thesis provides a direction and a particular stage to effectively target the narcoterrorism process. The question of who, how, and when is open for further studies.

## LIST OF REFERENCES

- Afghanistan Opium Survey 2012*: United Nations Office on Drugs and Crime, April 2012.
- Narco-Terrorism (Global and Regional Overview)*. Bucharest: By the SECI Center Anti-Terrorism Task Force Based on Anti-Smuggling and Organized Crime Department (KOM) of Turkish National Police (TNP), 08 March 2004.
- Narco-Terrorism: International Drug Trafficking and Terrorism—A Dangerous Mix*. Washington, DC: U.S. Government Printing Office, 2003.
- Special Session of the General Assembly Devoted to the Fight Against the Illicit Production, Sale, Demand, Traffic and Distribution of Narcotic Drugs and Psychotropic Substances and Related Activities, 1998*: International Narcotics Control Board, 1998.
- UNODC World Drug Report 2012*: United Nations, June 2012.
- U.S. Counternarcotics Strategy in Afghanistan* : Senate Caucus on International Narcotics Control, July 2010.
- War on Drugs Report of the Global Commission on Drug Policy*: Global Commission on Drug Policy, June 2011.
- World Drug Report 2009*: UNODC (United Nations Office on Drugs and Crime), 2009.
- World Drug Report 2011*: UNODC (United Nations Office on Drugs and Crime), 2011.
- Alexander, Yonah, ed. *Combatting Terrorism Strategies of Ten Countries*: University of Michigan Press, 2002.
- Cagaptay, Soner. “Can the PKK Renounce Violence? Terrorism Resurgent.” *The Middle East Quarterly XIV*: Number 1, no. Winter 2007 (2007): 45–52.
- Ekici, Behsat, Phil Williams, and Ayhan Akbulut. “The PKK and the KDSs: Cooperation, Convergence Or Conflict?” In *The PKK Financial Sources, Social, and Political Dimensions*, edited by Strozier, Charles B. and James Frank. USA, UK: VDM Verlag Dr. Muller, 2011.
- Felbab-Brown, Vanda. “Globalization and Narcoterrorism.” In *State of Corruption, State of Chaos: The Terror of Political Malfeasance* , edited by Cox, Michaelene. USA: Lexington Books, 2008.
- Freedman, Benjamin, and Matthew Levitt. “Contending with the PKK’s Narco-Terrorism “*The Washington Institute Improving the Quality of U.S. Middle East Policy* Policy #1611, (December 8, 2009).

- Freeman, Michael. *Financing Terrorism : Case Studies*. Farnham; Burlington, VT: Ashgate, 2012.
- Goodhand, Jonathan. "Frontiers and Wars: The Opium Economy in Afghanistan." *Journal of Agrarian Change* 5, no. 2 (04, 2005): 191–216.
- Griffin, Michael. *Reaping the Whirlwind : The Taliban Movement in Afghanistan*. London; Sterling, VA: Pluto Press, 2001.
- Karaca, Anil and Naval Postgraduate School (U.S.). *Disrupting Terrorist Networks [Electronic Resource] : An Analysis of the PKK Terrorist Organization*. Monterey, California: Naval Postgraduate School, 2010.
- Laciner, Sedat. "Drug Smuggling as a Means of PKK Terrorism." *usak.org.tr* (30 October 2008: 08.17.2012).
- Mandalawi, Sazan M. "How Accurate is it to Describe the PKK as a Narcoterrorist Organization?" *Drugs and Narcoterrorism the University of Nottingham* (Autumn 2011).
- Mansfield, David. *The Economic Superiority of Illicit Drug Production: Myth and Reality*, August 2001.
- Moore, Molly. "NATO Confronts Surprisingly Fierce Taliban." *Washington Post*, February 26, 2008 .
- Onay, Abdulkadir. "PKK Criminal Networks and Fronts in Europe." *The Washington Institute for Near East Policy* no. Policywatch 1344 (February 21, 2008).
- Perl, Raphael F. *International Drug Trade and U.S. Foreign Policy*: CRS Report for Congress, November 6, 2006.
- Peters, Gretchen. *How Opium Profits the Taliban*. Washington D.C.: United States Institute of Peace, August 2009.
- . *Interview*. Anonymous 10 September 2012 18:00.
- . *Seeds of Terror : How Heroin is Bankrolling the Taliban and Al Qaeda*. 1st ed. New York: Thomas Dunne Books, 2009.
- Piazza, James. "The Illicit Drug Trade, Counternarcotics Strategies and Terrorism." *Public Choice* 149, no. 3 (12, 2011): 297–314.
- Placido, P. Anthony. *Transnational Drug Enterprises (Part II): Threats to Global Stability and U.S. Policy Responses*: DEA Public Affairs, March 3, 2010.

- Rolles, Steve, George Murkin, Martin Powell, Danny Kushlick, and Jane Slater. *The Alternative World Drug Report Counting the Costs of the War on Drugs: Count the Costs*, 2012.
- Rollins, John, and Liana Sun Wyler. *International Terrorism and Transnational Crime: Security Threats, U.S. Policy, and Considerations for Congress* : Congressional Research Service, March 18, 2010.
- Roman, Caterina Gouvis, Heather Ahn-Redding, and Rita James Simon. *Illicit Drug Policies, Trafficking, and use the World Over. Global Perspectives on Social Issues*. 1st pbk ed. Lanham, MD: Lexington Books, a division of Rowman & Littlefield Publishers, Inc., 2007.
- Roth, Mitchel P., and Murat Sever. "The Kurdish Workers Party (PKK) as Criminal Syndicate: Funding Terrorism through Organized Crime, A Case Study." *Studies in Conflict & Terrorism* 30, no. 10 (10, 2007): 901–920.
- Sahin, Fuat Salih. "Case Studies in Terrorism-Drug Connection: The Kurdistan Workers' Party, the Liberation Tigers of Tamil Eelam, and the Shining Path "The University of North Texas, August 2001.
- Soylemez, Hasim. "PKK Finances Terrorism through Drug Trafficking." *Todayszaman*, November 13, 2011.
- United Nations Office on Drugs and Crime, accessed 09/13, 2012,  
<http://www.unodc.org/unodc/en/frontpage/2009/October/unodc-reveals-devastating-impact-of-afghan-opium.html>.
- UNODC. *UNODC TOCTA (the Globalization of Crime: A Transnational Organized Crime Threat Assessment Report)*: United Nation Publications, 2010.
- Williams, Phil. "Transnational Criminal Organisations and International Security," *Survival*, Vol. 36, No. 1, Spring 1994, pp. 96–113.
- Wyler, Liana Sun. *International Drug Control Policy*: Congressional Research Service, August 24, 2009.
- Zerell, U., B. Ahrens, and P. Gerz. "Documentation of a Heroin Manufacturing Process in Afghanistan." *Bulletin on Narcotics* 47, no. 1 and 2 (2005): 11–31.

**THIS PAGE INTENTIONALLY LEFT BLANK**

## **INITIAL DISTRIBUTION LIST**

1. Defense Technical Information Center  
Ft. Belvoir, Virginia
2. Dudley Knox Library  
Naval Postgraduate School  
Monterey, California